

Zhichao Chen/ Ziciu Can (Wade-Giles)

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EXPERIENCE	<p>Doctor of Philosophy Candidate, State Key Laboratory of Industrial Control Technology, College of Control Science and Engineering, Zhejiang University Oct 2020–Now</p> <p>Supervised by Zhihuan Song and Zhiqiang Ge on industrial process data analytics</p> <ul style="list-style-type: none">Theoretically derived graph mining and utilization of industrial process.Derive latent variable learning algorithm from the perspective of optimization/control theory. <p>Research Intern, Ant Group Aug 2021–Jan 2023</p> <p>Supervised by Leilei Ding, Jianmin Huang and Wei Chu on cumulative time-series forecasting and large scale multivariate anomaly detection & diagnosis.</p> <ul style="list-style-type: none">Development of time-series forecasting paper for “red-package” business.Development of anomaly diagnosis algorithm for applet monitoring (full-stack). <p>Undergraduate, School of Chemical Engineering and Technology, Sun Yat-sen University 2016–2020</p> <p>Supervised by Chang He and Haoshui Yu on chemical process optimization using GAMS.</p> <ul style="list-style-type: none">Synthesize of “organic Rankine cycle-heat integration-wastewater desalination” Coupled System
EDUCATION	<p>Ph.D. Control Theory & Engineering, Zhejiang University (exp.) 2025</p> <p>B.S. Chemical Engineering & Technology, Sun Yat-sen University 2020</p>
SERVICES	<p>Reviewer,</p> <ul style="list-style-type: none">Conference: ICLRJournal: IEEE TNNLS
AWARDS	<p>Undergraduate National Scholarship, Ministry of Education (China) 2018,2019</p> <p>The First Prize Scholarship of Sun Yat-sen University, Sun Yat-sen University 2017,2018,2019</p> <p>One Hundred Outstanding Students of Sun Yat-sen University, Sun Yat-sen University 2021</p> <p>The First Prize Scholarship, Zhejiang University 2020,2021</p>
COMPETENCES	<p>Languages Chinese (<i>native</i>), English (CET-6 533))</p> <p>Techniques Python, GAMS, MATLAB, Optimization, Optimal Control Backends PyTorch, JAX, PyRO</p>
FIRST AUTHOR PUBLICATIONS	<p>[1] Variational Inference Over Graph: Knowledge Representation for Deep Process Data Analytics. <i>IEEE Transactions on Knowledge and Data Engineering</i> (CCF-A, Regular Paper), 2023. doi: 10.1109/TKDE.2023.3327415</p> <p>[2] Unsupervised Anomaly Detection & Diagnosis: A Stein Variational Gradient Descent Approach. In: <i>CIKM’23</i> (CCF-B, Short Paper), Birmingham, England, 2023. doi: 10.1145/3583780.3615167</p> <p>[3] Monotonic Neural Ordinary Differential Equation: Time-series Forecasting for Cumulative Data. In: <i>CIKM’23</i> (CCF-B, Applied Research Paper), Birmingham, England, 2023. doi: 10.1145/3583780.3615487</p> <p>[4] Directed Acyclic Graphs With Tears. <i>IEEE Transactions on Artificial Intelligence</i> vol. 4, no. 4, 972-983, 2023. doi: 10.1109/TAI.2022.3181115</p> <p>[5] Knowledge Automation Through Graph Mining, Convolution, and Explanation Framework: A Soft Sensor Practice. <i>IEEE Transactions on Industrial Informatics</i> (CCF-C, Regular Paper) vol. 18, no. 9, 6068-6078, 2022. doi: 10.1109/TII.2021.3127204</p>

- [6] Stochastic optimization-based approach for simultaneous process design and HEN synthesis of tightly-coupled RO-ORC-HI systems under seasonal uncertainty. *Chemical Engineering Science* vol. 246, 116961, 2021. doi: 10.1016/j.ces.2021.116961
- [7] Optimization of waste heat-driven wastewater desalination process in chemical process. *Journal of Chemical Engineering of Chinese Universities* vol. 34, no. 6, 1474-1481, 2020. doi: 10.3969/j.issn.1003-9015.2020.06.019

CO-AUTHOR
PUBLICATIONS

- [1] Optimal Transport for Treatment Effect Estimation. *NeurIPS 2024* (CCF-A, Main Track), 2023.
- [2] ESCM²: Entire Space Counterfactual Multi-Task Model for Post-Click Conversion Rate Estimation. In: *SIGIR'22* (CCF-A, Research Article), Madrid, Spain , 2022. doi: 10.1145/3477495.3531972